China Slide Curve Improvement Project
State Route 299 in Trinity County
02-TRI-299-13.3-13.8
02-TRI-299 – 13.0
EA 3C080

Focused Initial Study

Prepared by the
State of California Department of Transportation

December 2007

Caltrans

General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Trinity County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, and potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 2 Office of Environmental Management at 1657 Riverside Drive, Redding, CA 96001 and at the Trinity County Library, 211 North Main St., Weaverville, CA 96093.

- We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

  Thomas Balkow, Senior Environmental Planner
  North Region Environmental Planning, Redding Office
  California Department of Transportation
  P.O. Box 496073, Redding, CA 96049-6073

  Submit comments via email to: Thomas_Balkow@dot.ca.gov

- Submit comments by the deadline: January 30, 2008.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Debbie Pedersen, North Region Environmental Planning, P.O. Box 496073, Redding, CA 96049-6073; (530) 225-3738 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

State of California
Department of Transportation

SCH Number:
02-TRI-299-13.3-13.8
02-TRI-299-13.0
EA 02-3C080

China Slide Curve Improvement Project

State Route 299 in Trinity County
02-TRI-299-13.3-13.8
02-TRI-299-13.0
EA 3C080

FOCUSED INITIAL STUDY

State Route safety project to realign the curve, add paved shoulders and shoulder backing, and replace the drainage features

Submitted Pursuant to: (State) Division 13, California Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

12-27-07
Date of Approval

Cindy Anderson, Office Chief - North
North Region Environmental Services
California Department of Transportation

Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), District 2, proposes a project to improve the safety of an existing road segment by realigning the curve, adding shoulders, and replacing the drainage features on a segment of State Route (SR) 299 in Trinity County from post mile 13.3 to 13.8. In addition, a disposal site will be utilized for construction staging, material crushing, and additional material disposal located three tenths of a mile west of the project limits at post mile 13.0 on the south side of the existing road.

***SR Safety Improvements*:** The safety project is a challenging project from a geotechnical perspective. The existing roadway is perched 100 feet above the Trinity River. Above the roadway the steep terrain is composed of colluvial soil (silty sand with minor clay, angular gravel, cobbles, and boulders). Some locations within the project area demonstrate weak pockets and slope failures. The proposed highway safety improvements are expected to take place along side and upwards into the slopes of the existing alignment. These improvements are anticipated to reduce the fatality and injury accidents by increasing the highway horizontal curve radius, increasing the stopping sight distance, providing 4 foot paved shoulders in both the eastbound and westbound directions, adding 3 feet of soil shoulder backing in both the eastbound and westbound directions, and improving the super-elevation and consistency of the highway geometrics. The improvements will increase the curve radius and will also increase the design speed from 20 mph to 40 mph, which is consistent with the drive expectation for this roadway.

Disposal, Borrow, and Construction Staging Site: It is proposed that an existing material disposal site will be used as a construction staging area, borrow site, and disposal site. Approximately 25,000 cubic yards of material will be disposed of at this site at project construction completion.

This proposed Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Negative Declaration is subject to modification based on comments received by interested agencies and the public.

Determination

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have no effect or a less than a significant effect on agricultural resources, air quality, biological resources, cultural resources, geology/soils, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation/traffic, or utilities/service systems.

- The proposed project would have less than significant impact on hazardous materials or visual aesthetics based on the following mitigation measures:
    1. Concrete barriers and walls will be treated to blend with the natural surroundings (Aesthetics).
    2. Native vegetation will be planted on the reinforced soil slope and construction disturbed areas reseeded to blend with the existing terrain within the project area (Aesthetics).
    3. The reclaimed disposal site areas will be contoured and hydro-seeded with native vegetation. (Aesthetics)
    4. Trees will be planted along the north embankment of the disposal site. (Aesthetics)
    5. The project is required to comply with the Airborne Toxic Control Measures regulations as follows (Hazardous waste):
        a) Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos;
        b) The speed of any vehicles and equipment traveling across unpaved areas must be no more than fifteen (15) miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries;
        c) Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; and
        d) Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public.

_____ _____

Cindy Anderson, Office Chief - North Date
North Region Environmental Services
California Department of Transportation

Initial Study

Project Title

China Slide Curve Improvement Project

Lead Agency Name, Address and Contact Person

California Department of Transportation
1657 Riverside Drive, Redding, CA 96001
PO Box 496073, Redding, CA 96049-6073
Thomas Balkow, Chief North Region Environmental Management, R2
(530) 225-3405

Project Location

The proposed project site is located on State Route 299 in Trinity County from post mile 13.3 to 13.8, near Mill Creek Road by Burnt Ranch. Refer to the Project Location Map and the Project Vicinity Map on pages *v* and *vi*.

Project Sponsor's Name and Address

California Department of Transportation
Thomas Balkow, Chief North Region Environmental Management, R2
1657 Riverside Drive, Redding, CA 96001
PO Box 496073, Redding, CA 96049-6073

Purpose and Need

Improve the segment of State Route 299 from post miles 13.3 to 13.8, in Trinity County, to reduce the fatality and injury accidents by increasing the highway horizontal curve radius, increasing the stopping sight distance, providing 4 foot paved shoulders in both the eastbound and westbound directions, adding 3 feet of soil shoulder backing in both the eastbound and westbound directions, and improving the super-elevation and consistency of the highway geometrics. The improvements will increase the highway design speed from 20 mph to 40 mph, which is consistent with the drive expectation for this roadway.

Description of Project

The California Department of Transportation (Caltrans), District 2, proposes the following activities (scope of work) to improve the safety of the road:

Road improvements planned from post mile 13.3 to 13.8

- Increase the horizontal curve radius and provide an additional 7 feet of shoulder width (eastbound and westbound) in order meet current highway design standards (4 foot paved shoulders and 3 feet of shoulder backing and roadside ditch) by shifting the alignment to the south into the existing embankment;
- Cut back slopes along the south embankment and haul the material to the disposal site and staging area;

- Construct two retaining walls (one Mechanically Stabilized Earth {MSE} wall and one gabion wall) on the north side of the existing alignment to provide a stable surface for the road width extension, haul material in from the disposal site and staging area;
- Construct one Reinforced Soil Slope (RSS) on the south side of the road to stabilize the slope surface and impede further slips or slides at the location;
- Replace 4 existing insufficient drainage pipes to convey storm water;
- Modify two existing drainage features to accommodate the new road width (modify and extend the drainage inlets);
- Obliterate the existing asphalt and re-contour the adjacent area to match new road elevation;
- Prepare the new road sub-base, including placing fill and minor cuts, and apply asphalt to new road surface; and
- Re-seed disturbed soils and plant native vegetation at the toe of the MSE wall.

Disposal and Borrow Site and Staging Area at post mile 13.0

- Establish and prepare the site to store, fuel, and maintain equipment that will be used on the road construction project;
- Set up a rock crusher to process onsite material for use on the road construction project;
- Temporarily store the material hauled from the slope excavation at the road construction project site;
- Haul the crushed material to the project site for use in constructing the MSE wall;
- Haul stored material back to project site for constructing retaining features and road sub base;
- Remove the rock crusher and related equipment at project completion;
- Re-establish disposal area in determined area and plant the exterior slope of the disposal area;
- Contour and hydro-seed reclaimed areas with native vegetation;
- Plant trees along the north embankment of the disposal site to obscure the disposal site.

Surrounding Land Uses and Setting

Trinity County General Plan designates the area as Resource and the United States Forest Service land management prescription is Recreation. The existing State Route passes through the Shasta Trinity National Forest (STNF) and is bounded on all sides by public lands. Therefore, the STNF Land and Resource Management Plan governs the use of the land rather than the Trinity County General Plan. Compatible uses within the USFS land management "Recreation" prescription are recreation, hiking, fishing, and modified timber harvest. Applicable Forest Standards and Guidelines also include the establishment of transportation and utility corridors as needed to accommodate existing and planned utilities. New right of

way is needed for the proposed alignment and a Department of Transportation (DOT) easement will be obtained from the STNF prior to construction.

Biology

The surrounding area vegetation is classified as Montane Hardwood-Conifer. The following vegetation species are found in the project area: ponderosa pine, Douglas fir, incense cedar, California black oak, tan oak, Pacific madrone, canyon live oak, big leaf maple, and white alder. A complete plant list for the project action area can be found in Appendix C of the Natural Environment Study (NES), December 2007. This vegetation provides a habitat for a variety of wildlife species. Canopy cover and under story vegetation are variable which makes the habitat suitable for numerous species. In addition, many amphibians can be found in the duff areas (decomposing leaves and other type deteriorating vegetation). Various species of migratory birds would be expected to nest in the project area. The NES identifies a work window, for this construction project, for vegetation removal from September 15 through March 30 of each year to avoid potential impacts to migratory nesting birds. The NES concluded that there were no other potential impacts to any special status animal or plant species.

Cultural

A cultural resource is present within the project boundaries. This resource will be avoided by the project activities and will not be adversely effected as the project is currently proposed. If the proposed project changes or if cultural resources are discovered during project activities, work will temporarily cease until a qualified archaeologist assesses the cultural material and an appropriate course of action can be determined.

Permits and Approvals Needed

There are seven drainages within the project limits that drain into the Trinity River. Three drainages are classified as roadside ditches and carry storm water run-off from the road surface; work in the roadside ditches does not require permits or approvals. Of the remaining drainages, three are classified as relatively permanent waters, which flow more than three months per year, and one stream "seeps" through the slope without a culvert. These four drainages are considered jurisdictional waters and will require the following permits and approvals prior to construction:

- U.S. Army Corps of Engineers, 404 Nationwide Permit Authorization
- California Regional Water Quality Board, North Coast Region – 401 Certification
- California Department of Fish and Game – 1602 Agreement

Zoning

Although the project area is within the National Forest, Trinity County has zoned the area as "Unclassified." The zoning defines one single-family dwelling, forestry, orchards, Christmas tree farms, and row and field crops as allowable uses. Ancillary uses include the development of roads to support the allowable uses within the zone.

Project Location Map

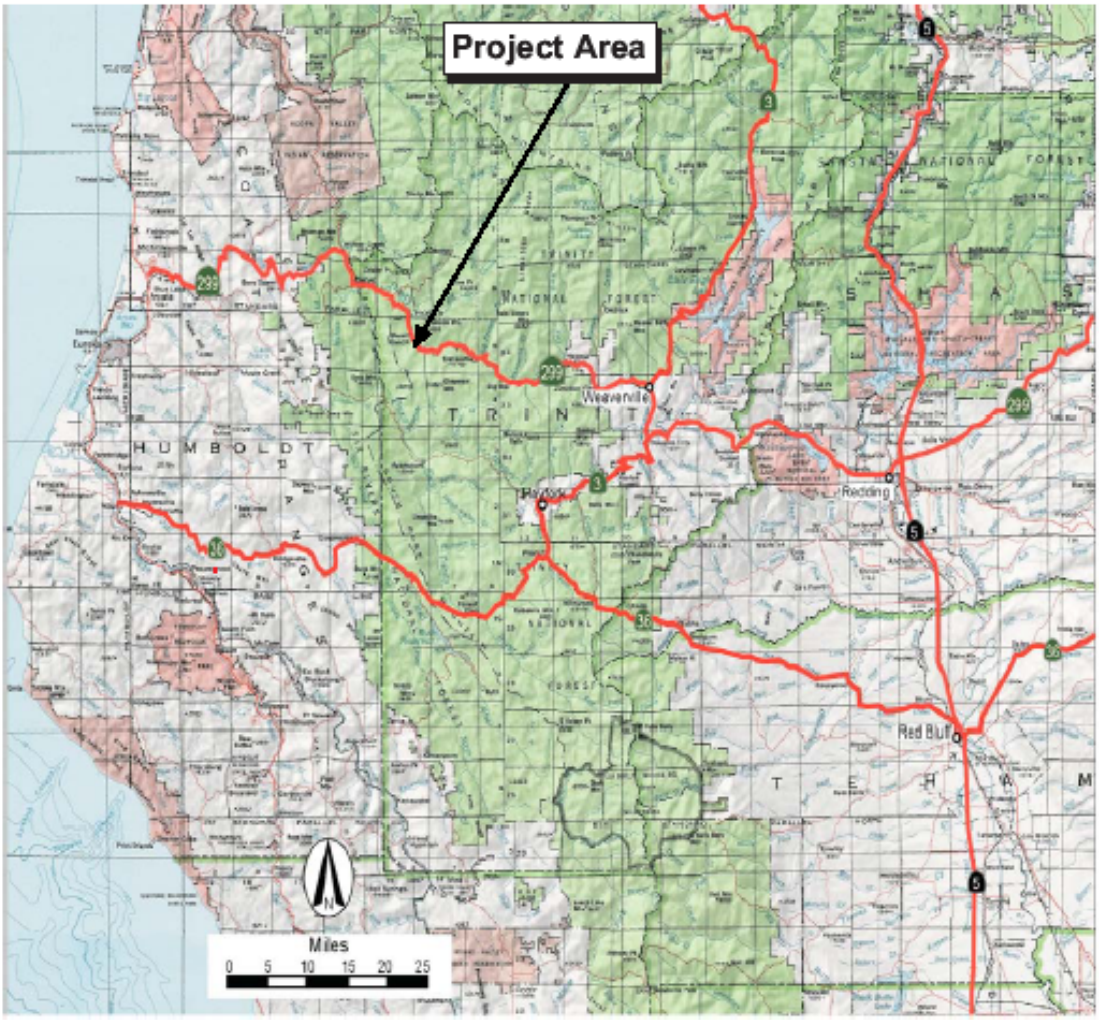


Figure 1
Project Location Map
China Slide
Curve Improvement Project

02-TRI - 299
PM 13.3/13.8
EA 02-3C0800

State of California

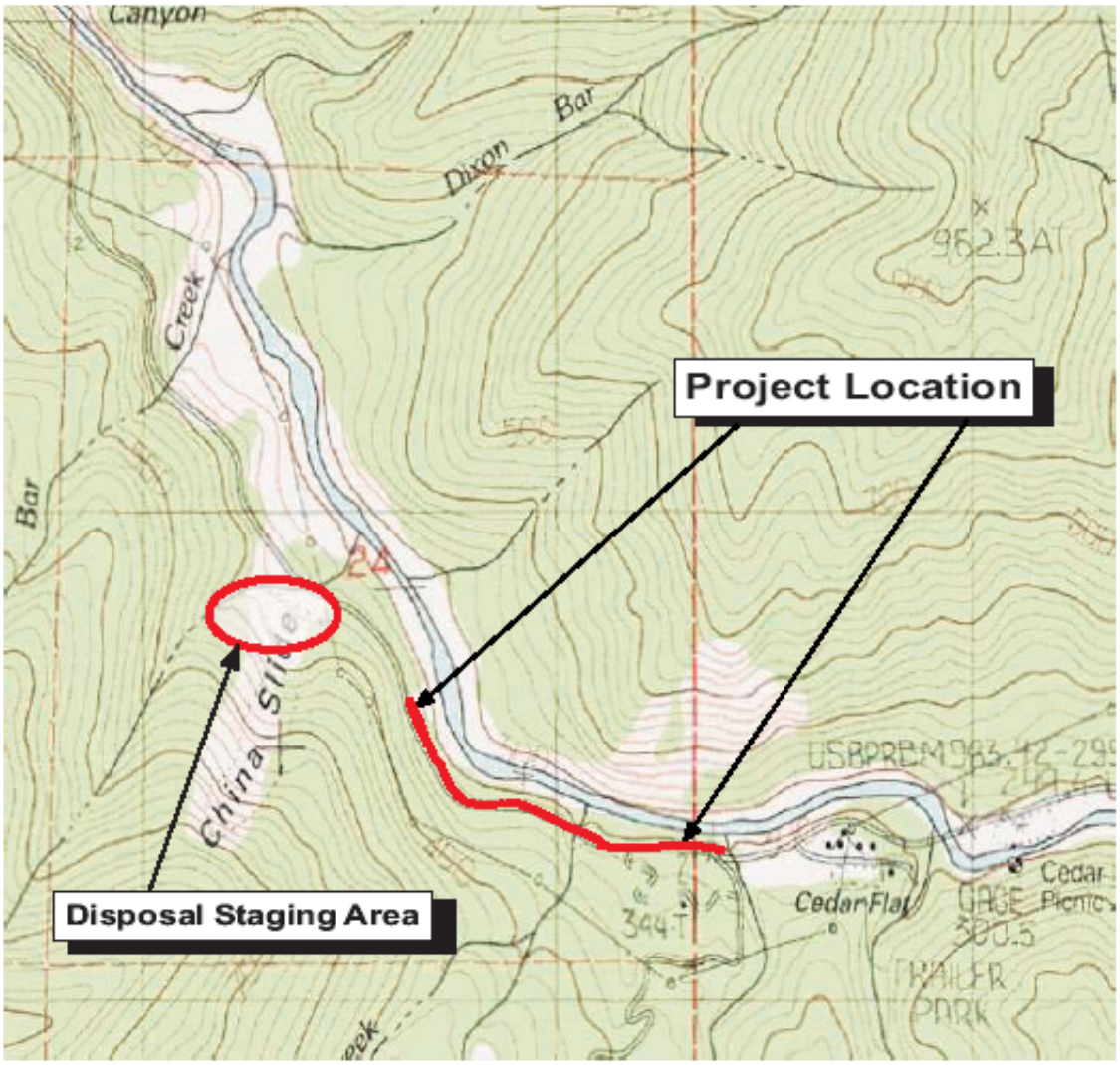
0 0.5 1 kilometer

0 0.5 1 mile

CALIF.

QUADRANGLE LOCATION

Project Vicinity Map



Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- [X] Aesthetics
- [ ] Agricultural Resources
- [ ] Air Quality
- [ ] Biological Resources
- [ ] Cultural Resources
- [ ] Geology/Soils
- [X] Hazards and Hazardous Materials
- [ ] Hydrology/Water Quality
- [ ] Land Use/Planning
- [ ] Mineral Resources
- [ ] Noise
- [ ] Population/Housing
- [ ] Public Services
- [ ] Recreation
- [ ] Transportation/Traffic
- [ ] Utilities/Service Systems
- [ ] Mandatory Findings of Significance

Impacts Checklist

The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include "potentially significant impact," "less than significant impact with mitigation," "less than significant impact," and "no impact."

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. The checklist is followed by a focused discussion of potential aesthetic, geology/soils, hazardous waste, water quality, and noise issues relating to this project.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
I. AESTHETICS — Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	X	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	X	☐	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	X
II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X

"No Impact" determinations in this section are based on the adjacent existing property uses (public lands) and the Trinity County General Plan and Zoning designations.

III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X

"No Impacts" determinations based on location of the project in proximity to noise receptors, compliance with local and regulatory requirements, the temporary nature of the road construction activities and rock crushing activities, and geographic features and topography of the area.

IV. BIOLOGICAL RESOURCES — Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	X	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
f) Conflict with the provisions of an adopted Habitat				

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Natural Environmental Study (NES), December 2007. Less than significant impact due to type of vegetation located on the existing slopes and avoidance of impacts to the Trinity River by constructing the project away from that resource.

V. CULTURAL RESOURCES — Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	X
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Historic Resource Compliance Report, December 2007. Also, known resources are being avoided by requiring the installation and identification of Environmentally Sensitive Area (ESA) fencing.

VI. GEOLOGY AND SOILS — Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	☐	X
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	☐	X
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X

"No Impact" determinations in this section are based upon discussions with the Geotechnical Engineer.

VII. HAZARDS AND HAZARDOUS MATERIALS —
Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	X	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	X	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X

"No Impact" determination in this section is based on review of the aerial photographs, area mapping, the County General Plan, and discussions with the Project Engineer.

d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X

No impact to airport land use and private airstrips is based on review of aerial photographs of the project area; no airports or airstrips are located within the project area.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	X

"No Impact" statement is based on review of the Trinity County General Plan Safety Element.

VIII. HYDROLOGY AND WATER QUALITY — Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	☐	☐	X	☐

To minimize potential and temporary impacts, an Erosion Control Plan will be prepared and implemented. During construction Best Management Practices, such as waddles, straw bales, and silt fencing will being place to control transport of sediment and erosion during storm events.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	☐	☐	☐	X
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X

"No Impact" determinations in this section are based on compliance with applicable Federal permits and regulations.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	X
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	X
j) Result in inundation by a seiche, tsunami, or mudflow?	☐	☐	☐	X

"No Impact" determinations in this section are based upon the project location.

IX. LAND USE AND PLANNING — Would the project:

a) Physically divide an established community?	☐	☐	☐	X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X

"No Impact" determinations in this section are based upon compliance with the applicable area plans, programs, and regulations .

X. MINERAL RESOURCES — Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	X

"No Impact" determinations in this section are based on compliance with the Trinity County General Plan, zoning ordinance, and applicable area plans and programs.

XI. NOISE — Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general	☐	☐	X	☐

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
plan or noise ordinance, or applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	X	☐

Disposal Site – Temporary noise levels are anticipated from rock crushing activities. A portable rock crusher will most likely be transported to the disposal site to prepare and recycle the existing disposal site material.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X

"No Impact" determinations in this section are based on conversations with the Project Engineer and Construction Engineer. Temporary construction noise will be short in duration. The closest dwelling or commercial business is over one mile from the project site or disposal site.

XII. POPULATION AND HOUSING — Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X

"No Impact" determinations in this section are based on the scope and location of the project.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X

"No Impact" determinations in this section are based on the scope and location of the project.

XIV. RECREATION —

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	X

"No Impact" determinations in this section are based on the scope and location of the project.

XV. TRANSPORTATION/TRAFFIC — Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X

"No Impact" determinations in this section are based on compliance with area plans and regulations and the type and location of the project (highway construction project to improve safety).

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
projected demand in addition to the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X

"No Impact" conclusions in this section are based on the determination that this road construction project will not cause a permanent demand on existing utility or service systems.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	X
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Affected Environment, Environmental Consequences, and Mitigation Measures

Aesthetics

Regulatory Setting

It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. The Legislature declares that such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution. In concert with this policy and the Constitution, California has created a California Wild and Scenic Rivers System to be administered in accordance with provisions of state law.

Federally designated Wild and Scenic Rivers are managed by a federal resource agency and determinations of potential impacts are provided by that agency. The USDA Forest Service, STNF manages and provides determinations based on management plans of the area. For potential impacts that can be mitigated, the managing agency can provide a 'deminimus' finding to meet the conditions of federal law. This segment of road is also identified by the STNF as a scenic byway.

Affected Environment

The Trinity River is designated a State Scenic River and is also designated as a Federal Wild and Scenic River with a use designation of Recreational in the Shasta Trinity National Forest Land and Resource Management Plan.

Impacts

There are no potential impacts to the river itself, but due to these designations and characteristics of the existing surroundings, there are typical attributes of a road that have the potential to cause visual intrusions on natural environments and therefore, could have a potential significant impact to the scenic natural environment.

Avoidance, Minimization, and/or Mitigation Measures

Early coordination and discussions occurred with the project development team and the STNF; this provided several opportunities to avoid impacts to the Trinity River, to minimize any effect on the free-flowing characteristics of the river, and to avoid the potential to alter the river segment's ability to meet the criteria that classify it as recreational. Also, to minimize visual intrusions, mitigation measures are included in the project features, such as treating (staining) concrete barriers and walls to blend with the natural surroundings. In addition, native vegetation will be planted on the reinforced soil slope and construction disturbed areas reseeded to blend with the existing terrain. The outside of the slope on the

disposal site will be planted with native trees to obscure the disposal site. Due to these actions the impact is reduced to less than potentially significant.

Hazardous Waste

Regulatory Setting

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use. Hazardous waste is defined as a waste with properties that make it potentially dangerous or harmful to human health or the environment, and may be liquids, solids, or contained gases.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. The Department of Toxic Substances Control (DTSC) regulates and interprets hazardous waste laws in California, and the California Air Resources Board (CARB) enforces regulations regarding naturally occurring asbestos.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper treatment of materials during excavation and transport, and proper disposal of hazardous material is vital during project construction in order to prevent impacts to workers (and the public) from contaminated dust or water.

Aerial Deposited Lead: Aerially deposited lead (ADL) is lead that has been deposited due to emissions from vehicles powered by leaded gasoline and is commonly found next to heavily traveled roadways. Lead is a solid inorganic metal found at varying concentrations in the natural environment. To improve the performance of gasoline powered engines, lead was also added to gasoline until the mid-1980s. Soil that contains lead above established hazardous waste thresholds and is left in-place would not be necessarily classified by DTSC as a "waste." The DTSC has provided site-specific determinations that "movement of wastes within an area of contamination does not constitute "land disposal" and, thus, does not trigger hazardous waste disposal requirements." Therefore, lead-impacted soil that is scarified in-place, moisture-conditioned and re-compacted during roadway improvement activities might not be considered a "waste."

Naturally Occurring Asbestos: Asbestos is the name for several types of naturally occurring fibrous minerals that are a human health hazard when inhaled or ingested. Asbestos that is found in the natural environment, as opposed to asbestos that has been mined and processed for industrial use, is called Naturally Occurring Asbestos (NOA). The CARB regulates NOA through two Air Toxic Control Measures (ATCMs); ATCM 93105 "*Asbestos Airborne Toxic Control Measure For Construction, Grading, Quarrying, And Surface Mining Operations*" and ATCM 93106 **"***Asbestos Airborne Toxic Control Measure For Surfacing Applications*." NOA has the potential to pose a health hazard when it becomes an airborne particulate. The

roadway improvement activities proposed on the project site could disturb NOA-containing rock and soil, thereby potentially creating an asbestos hazard. Mitigation practices can reduce the risk of exposure to asbestos-containing dust. The primary mitigation practice used for controlling exposure to potentially asbestos-containing dust is the implementation of engineering controls including wetting the materials being disturbed. Asbestos dust control methods have been defined in the ATCMs for airborne asbestos encountered during construction and road surfacing applications. Use of material containing more than 0.25% asbestos as a surfacing substance is not permitted. Onsite reuse or disposal of NOA-containing materials is allowed by the regulations if it is buried under at least 4 inches of material that does not have asbestos.

Affected Environment

Preliminary Site Investigation: A preliminary site investigation (PSI) was performed at the project site to determine if hazardous materials were present and, if so, in what concentrations. The PSI consisted of collecting soil and rock samples from the roadside and hillsides and the analysis of those samples for ADL and NOA by California licensed and certified laboratories.

ADL: The reported lead levels in the samples collected on the project site are consistent with naturally occurring background lead levels found on other project sites in the region. Because the reported lead concentrations are well below hazardous waste levels, soil materials excavated within the proposed project area do not require any special handling procedures, and may be reused onsite or disposed of without restriction.

NOA: One targeted and six random samples were collected and analyzed for asbestos. In five of the random samples asbestos was not detected. The other random sample was reported to contain less than 0.25% chrysotile asbestos. The targeted sample was found to contain 2.46% actinolite asbestos. The result of analysis from the targeted sample is not considered representative of the overall material on the project site, and is only used to confirm the presence of NOA, not as a quantitative measure of the percent present. NOA was not reported at the project site at an average level exceeding the CARB regulatory limit of 0.25%.

Impacts

ADL: Based on the results of the on-site testing of the material, there are no potential impacts identified with ADL.

NOA: Though asbestos was reported to be present at regulated levels in the targeted sample collected from the project site, the asbestos content within the project site as a whole does not render these materials unsuitable for reuse within the project boundaries. As required by ATCM 93106, material removed from the project site and provided to another party for surfacing material must be accompanied by a written notification that includes the statement " "WARNING!" This material may contain asbestos." However, material excavated on the project may be reused onsite or in the Caltrans right-of-way without restriction, because the

average asbestos content is less than 0.25%. Construction and or maintenance activities involving these asbestos-containing materials may fall under regulatory jurisdiction of the California Division of the Occupational Safety and Health Administration (Cal-OSHA).

Avoidance, Minimization, and/or Mitigation Measures

ADL: Since there are no potential impacts identified with this material, there are no avoidance, minimization, and/or mitigation measures identified or required for this project.

NOA: Because NOA was found within the project site, albeit at less than hazardous levels, appropriate mitigation measures will be required, per ATCM 93105 and ATCM 93106, to minimize releases of NOA to air (dust control) and surface waters (storm water discharge). Potential mitigation suggested in these regulations could include or be required during construction and are as follows: preparation and implementation of a dust compliance plan; locating a full water truck or water tank on the job site during work; application of water to the area prior to ground disturbance, including grading or excavation, to prevent visible dust emissions; restriction of construction vehicle speed to 15 miles per hour or less on the job site; wet and cover excavated loads prior to transporting material containing NOA; and capping material containing NOA with six to twelve inches of non-asbestos material.

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

Debbie Pedersen, Associate Environmental Planner. Contribution: Environmental Study Coordinator and Document Author

Thomas Balkow, Senior Environmental Planner. Contribution: Environmental Branch Chief

Russell Adamson, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report (HPSR)

Michelle Clark, Environmental Planner (Natural Science). Contribution: Project biologist, Natural Environment Study (NES)

Al Trujillo, Senior Transportation Engineer. Contribution: Project Engineer

Derek Willis, Senior Transportation Engineer. Contribution: Project Manager

Jeff Pizzi, Civil Transportation Engineer. Contribution: Hazardous Waste Coordinator

Tim Ellison, Landscape Associate. Contribution: Preliminary Environmental Assessment Report.

Socorro Urena, Transportation Engineer. Contribution: Assistant Project Engineer

Scott Lewis, Associate Engineering Geologist. Contribution: Geotechnical Engineering

Miguel Villicana, Transportation Engineer. Contribution: NPDES Storm Water Coordinator